

WHAT IS CLAIMED IS:

1. An improved broadhead arrowhead for affixation to an arrow shaft comprising:

- 5 (a.) a forward portion comprising a point;
- (b.) a rearward portion for engaging the arrow shaft;
- (c.) a curved blade intermediate said forward and rearward portions, wherein the curvature of said curved blade promotes a twisting aspect of said broadhead with regard to a direction of flight;
- 10 (d.) said curved blade increasing in width as measured from the leading edge thereof to the central axis of said broadhead.

15 2. The broadhead of claim 1, wherein said broadhead comprises a pitch of approximately 11.3.

3. The broadhead of claim 2, wherein said pitch corresponds to said broadhead having a linear translation or displacement of approximately 11.3 inches upon one full rotation thereof.

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4. The broadhead of claim 1, wherein said forward portion further comprises chisel-shaped flats.

5. The broadhead of claim 1, wherein said blade further comprises a cut-out portion, said cut-out portion comprising a downwardly tapered area or wind-deflector formed at the base thereof.

6. The broadhead of claim 1, wherein said rearward portion further comprises a thread.

7. The broadhead of claim 1, wherein said rearward portion further comprises a journal.

8. The broadhead of claim 1, further comprising means for allowing said broadhead to rotate independently of the arrow shaft.

9. The broadhead of claim 8, wherein said means for allowing said broadhead to rotate independently of the arrow shaft comprises a bearing insert.

10. The broadhead of claim 9, wherein said means for allowing said broadhead to rotate independently of the arrow shaft further comprises a retaining cap adapted to engage said bearing insert.

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11. The broadhead of claim 10, wherein said retaining cap is adhered to the exterior of the arrow shaft and is disposed over said bearing insert seated within the arrow shaft.

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12. The broadhead of claim 1, further comprising means for replacement of said blade independently from the remainder of said broadhead.

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13. The broadhead of claim 12, wherein said means for replacement of said blade comprises a lug at a rearward portion of said blade and a retainer for cooperating with said lug.

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14. The broadhead of claim 12, wherein said means for replacement of said blade comprises a groove for accommodating said blade.

15. An improved arrow comprising:

(a.) a broadhead arrowhead comprising a forward portion carrying a point, a rearward portion for engaging a shaft of said arrow, and a blade intermediate said forward and rearward portions; and,

(b.) a bearing insert and retaining cap for accommodating independent rotation of said broadhead arrowhead with regard to said arrow shaft.

16. The arrowhead of Claim 15, wherein said blade is curved to promote a twisting aspect of said broadhead arrowhead with regard to said arrow shaft.

17. The arrowhead of Claim 15, wherein said broadhead arrowhead comprises a pitch of approximately 11.3.

18. The arrowhead of claim 17, wherein said pitch corresponds to said broadhead arrowhead having a linear translation or displacement of approximately 11.3 inches upon one full rotation thereof.

19. The arrowhead of claim 15, wherein said retaining cap is adapted to engage said bearing insert.

20. The arrowhead of claim 19, wherein said retaining cap is adhered to the exterior of said arrow shaft and is disposed over said bearing insert seated within said arrow shaft.

21. A broadhead arrowhead, comprising:

10 a pitch of approximately 11.3.

22. The broadhead arrowhead of Claim 21, wherein said pitch corresponds to said broadhead arrowhead having a linear translation or displacement of approximately 11.3 inches upon one full rotation thereof.

22. An apparatus for independently rotating an arrowhead with regard to an arrow shaft, said apparatus comprising:

a bearing insert; and,

20 a retaining cap.

23. The apparatus of Claim 22, wherein said bearing insert is cylindrical-shaped and dimensioned to be seated within an end of the arrow shaft.

5 24. The apparatus of Claim 23, wherein said bearing insert comprises an outer flanged portion that rests atop the end of the arrow shaft, establishing at least one bearing surface therebetween.

10 25. The apparatus of Claim 24, wherein said retaining cap is dimensioned to be seated over said bearing insert, and wherein said flanged portion of said bearing insert contacts at least one inner surface of said retaining cap, establishing at least one bearing surface therebetween.

15 26. The apparatus of Claim 25, wherein a first end of said bearing insert extends at least partially through a first end of said retaining cap when said retaining cap is engaged with said bearing insert, thereby establishing at
20 least one bearing surface therebetween.

27. The apparatus of Claim 26, wherein said retaining cap is adhered to the exterior of the end of the arrow shaft when said retaining cap is placed over said bearing insert.

5 28. The apparatus of Claim 27, wherein said retaining cap functions to retain said bearing insert within the end of the arrow shaft.

29. The apparatus of Claim 27, wherein said retaining cap
10 functions to protect the end of the arrow shaft from potential cracking, breaking, splintering, denting, or other damage, as a result of forceful impact or collision of same with trees, rocks, bones, or other solid surfaces.

15 30. A method of independently rotating an arrowhead with regard to an arrow shaft, said method comprising the steps of:

- a. obtaining a bearing insert;
- b. placing said bearing insert into said arrow
20 shaft;
- c. applying an adhesive to an exterior end of said arrow shaft, proximal said bearing insert;

- d. placing a retaining cap over said exterior end of said arrow shaft, thereby establishing a bearing surface between said retaining cap and said bearing insert;
- 5 e. securing said arrowhead to said bearing insert; and,
- f. allowing said arrowhead to independently rotate with regard to said arrow shaft.

10 31. An improved broadhead arrowhead for affixation to an arrow shaft, comprising:

a blade comprising a cut-out portion, said cut-out portion comprising a downwardly tapered area or wind-deflector formed at the base thereof.

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32. An improved broadhead arrowhead assembly for affixation to an arrow shaft, comprising:

a blade comprising a cut-out portion, said cut-out portion comprising a downwardly tapered wind-deflector
20 formed at the base thereof;

a bearing insert; and,

a retaining cap.

33. An improved broadhead arrowhead assembly for
affixation to an arrow shaft, comprising:

a blade comprising a cut-out portion, said cut-out
portion comprising a downwardly tapered wind-deflector

5 formed at the base thereof;

a bearing insert; and,

a retaining cap,

wherein said broadhead comprises pitch of
approximately 11.3.

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